

Draft CHESAPEAKE BAY TMDL

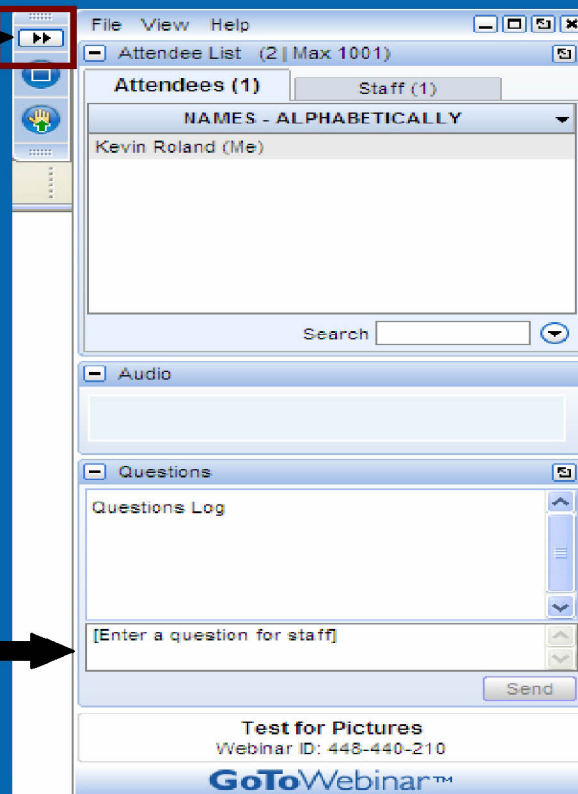
Restoring Streams, Creeks, Rivers and Chesapeake Bay

Webinar
September 28, 2010

- Click the double arrow to show or hide your control panel

- Type your questions here.
(Indicate organization)

Note: Because of the large audience, not all questions will be answered, but they will be saved, and your questions may help drive future events and could contribute to a FAQ.



Technical Questions: Citrix Global Customer Support

1-800-263-6317

Today's Agenda

➤ EPA presents draft TMDL

- Rich Batiuk, Chesapeake Bay Program Associate Director of Science
- Bob Koroncai, Chesapeake Bay TMDL Manager

➤ Question & Answer

➤ More information

www.epa.gov/chesapeakebaytmdl

First...The Bottom Line

Lack of progress triggered TMDL



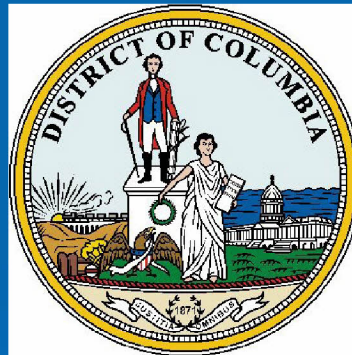
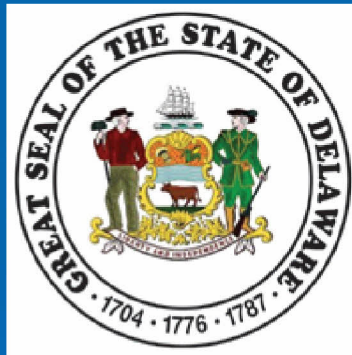
TMDL is a “pollution diet”



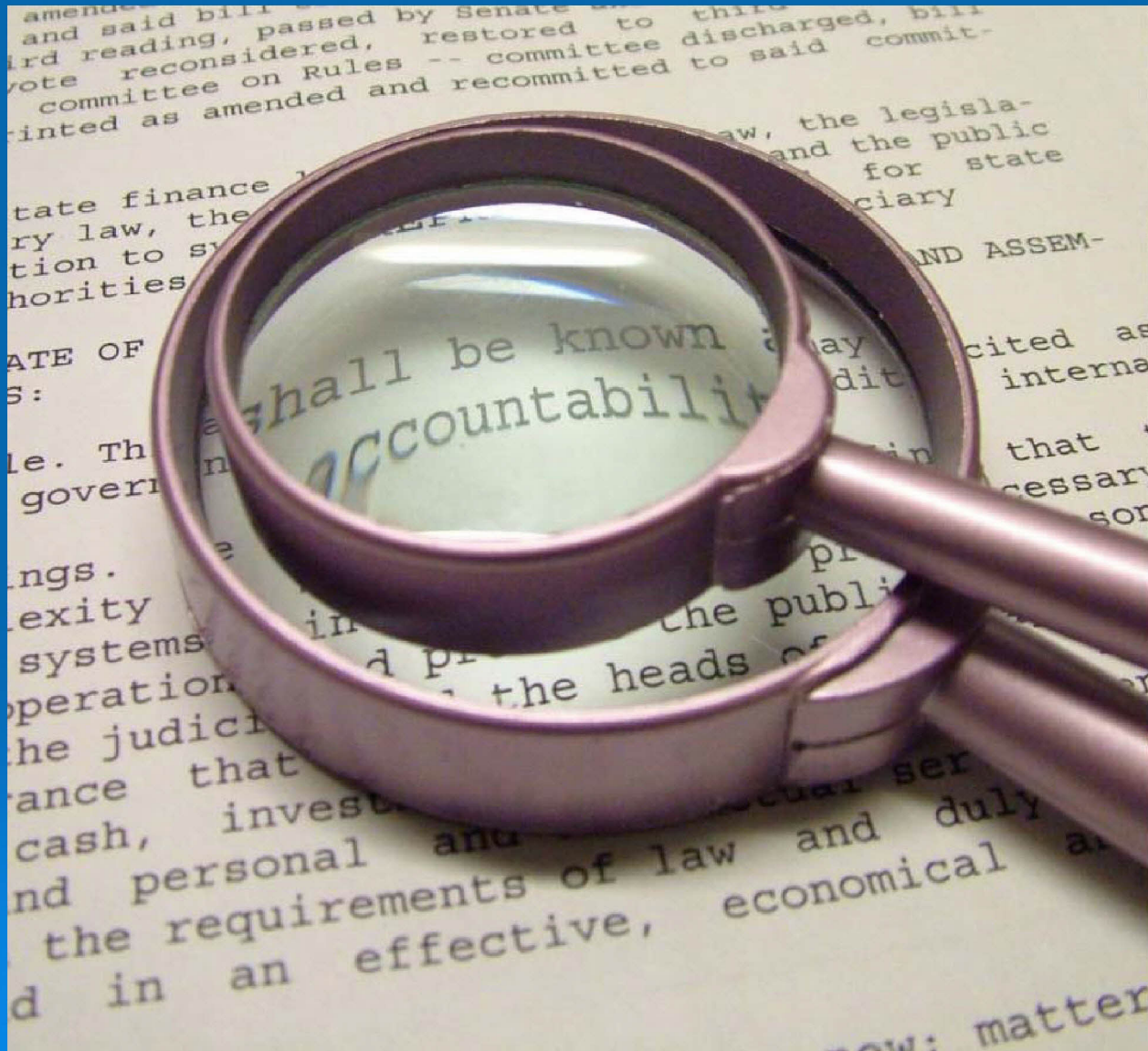
For your streams, creeks and rivers



Blend of state actions and federal measures



Accountability for results



Task **not easy** but essential



What is a TMDL?

And Why Does it Matter?

Clean Water Act requires TMDL for waters that don't meet state standards



TMDL = Total Maximum Daily Load

Defines amount of pollution a water body can handle and be healthy



Bay and tributaries are **polluted** by nitrogen, phosphorus, sediment



**Rivers, streams and creeks
contribute to Bay, so included in TMDL**



Legal obligation to get it done

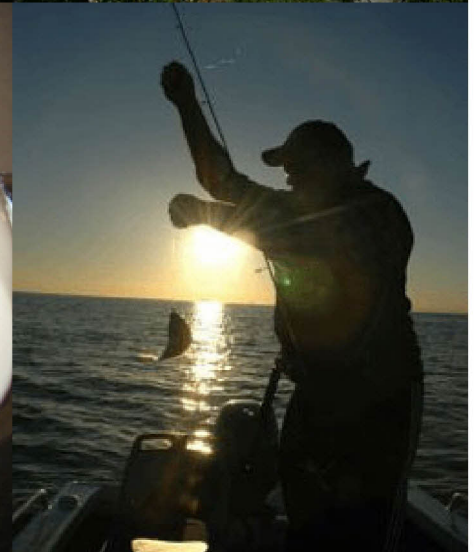
**Clean Water Act, Chesapeake 2000,
consent decrees, settlement**



Part of strategy to meet a Presidential Executive Order



Clean water matters to **your community**

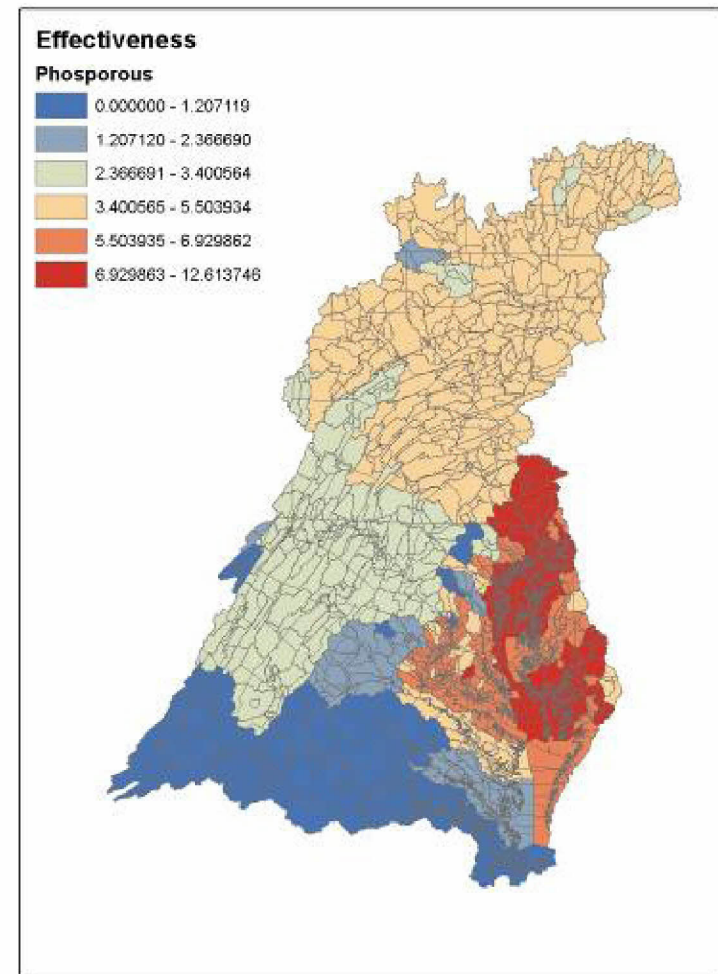
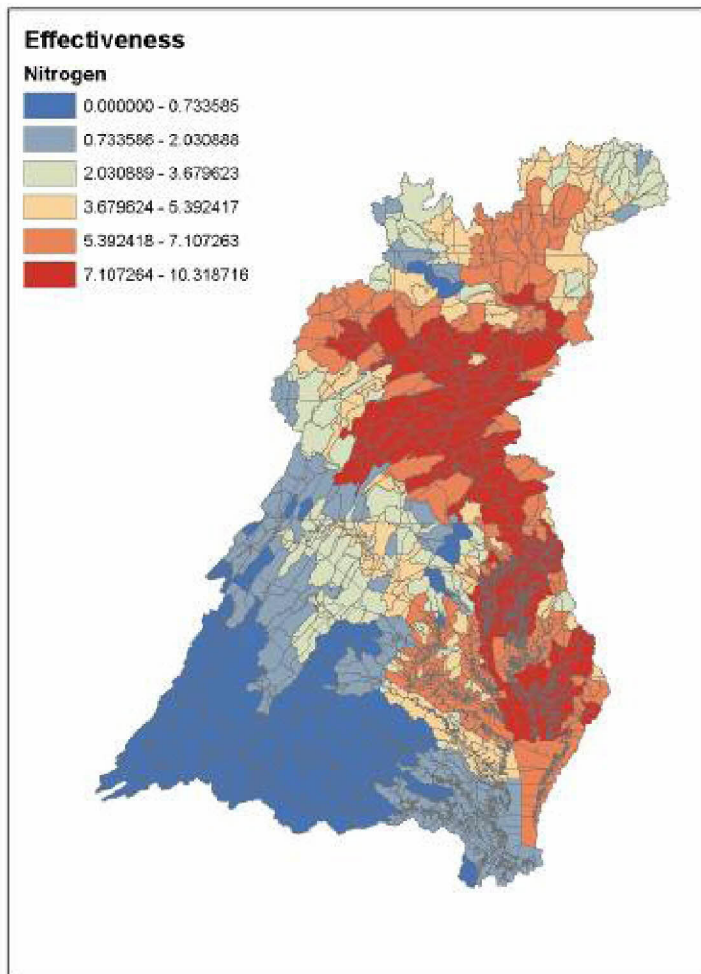


Setting the Pollution Diet

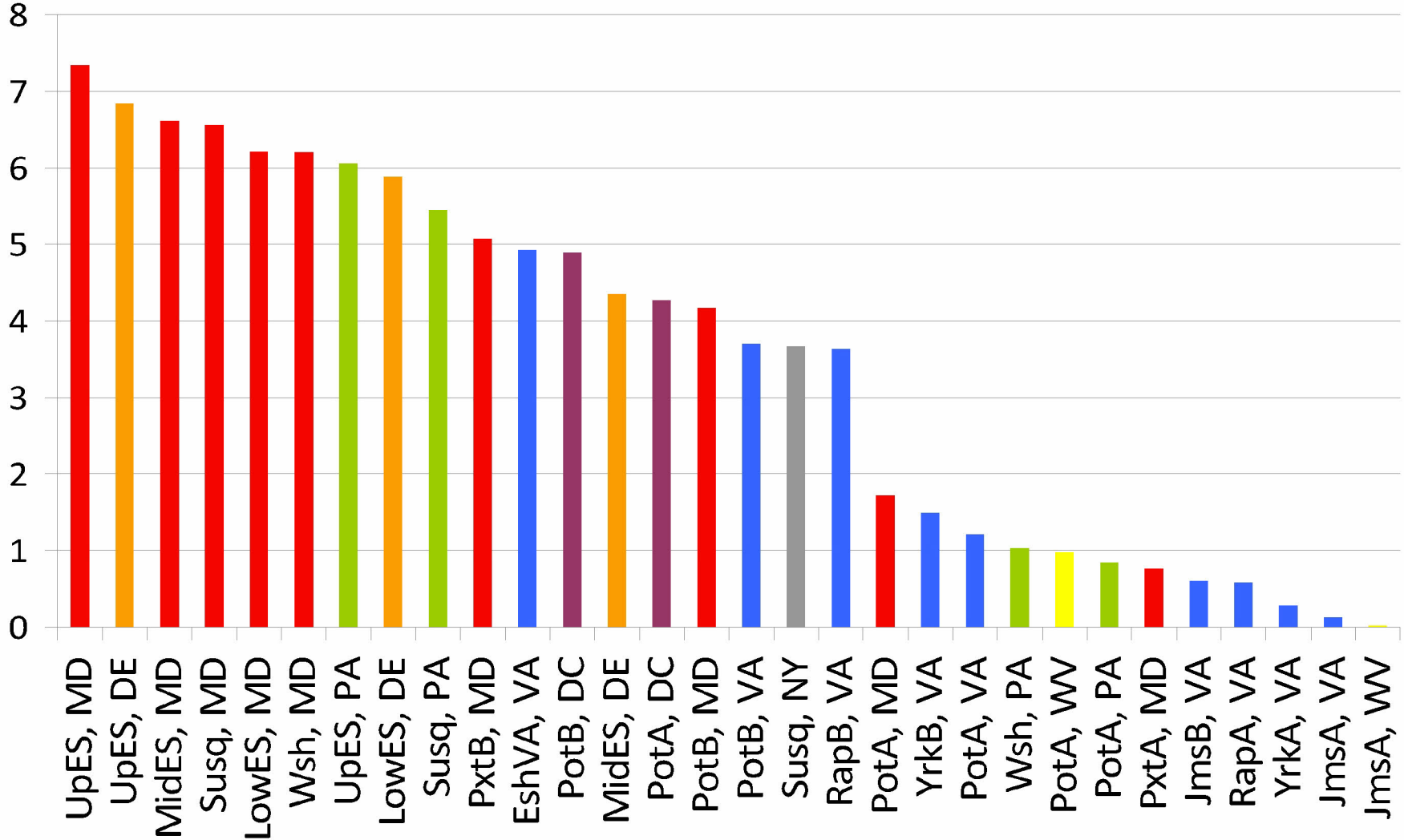
Three Steps to Develop TMDL

- EPA provided allocations to the jurisdictions and major basins for nitrogen, phosphorus and sediment
- Jurisdictions developed draft Watershed Implementation Plans
- EPA evaluated the draft WIPs and as necessary provided backstop allocations in the draft TMDL

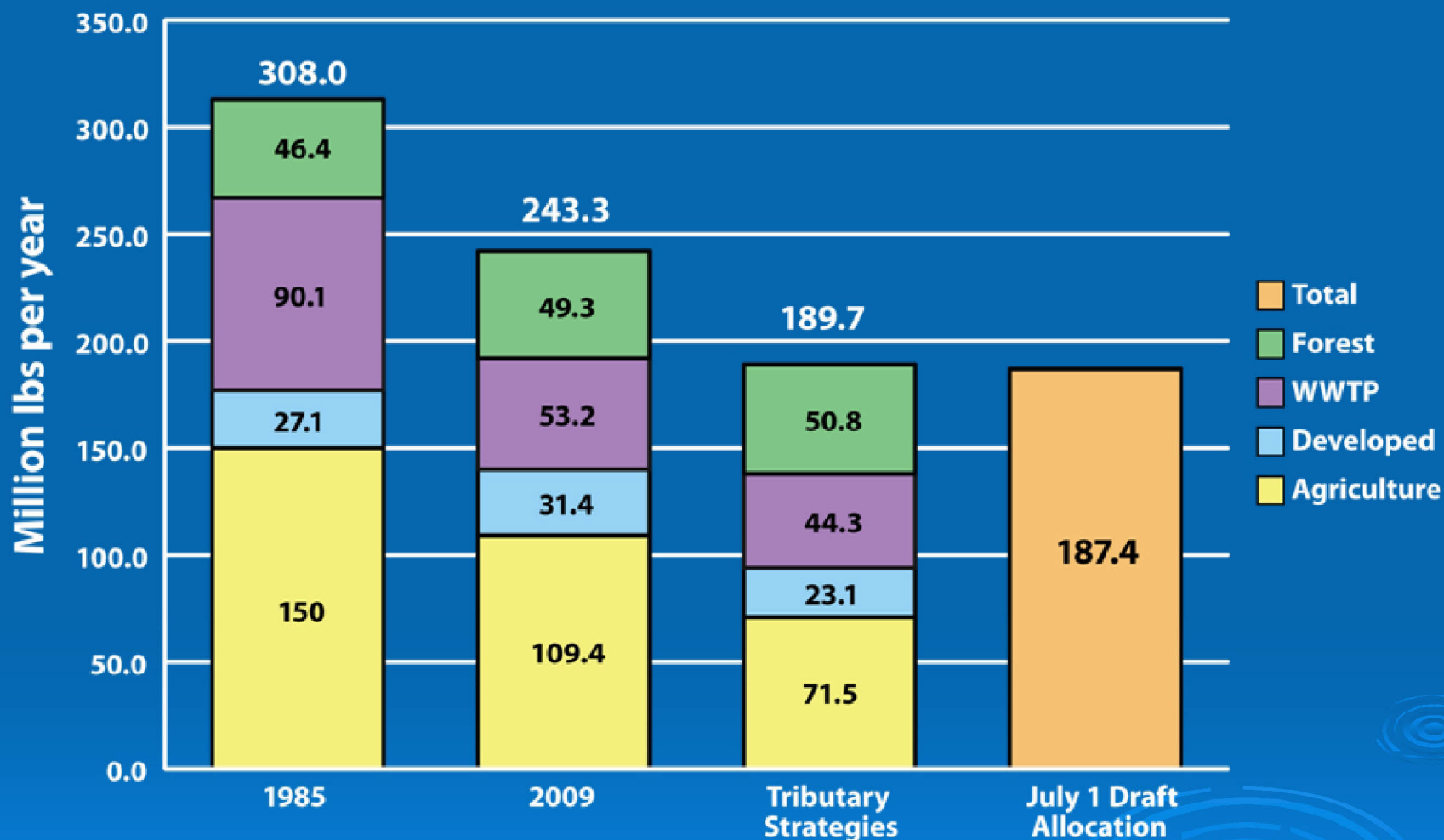
Impact of Pollution



Major Rivers by Jurisdiction Ranked by Pollution Impact on Bay



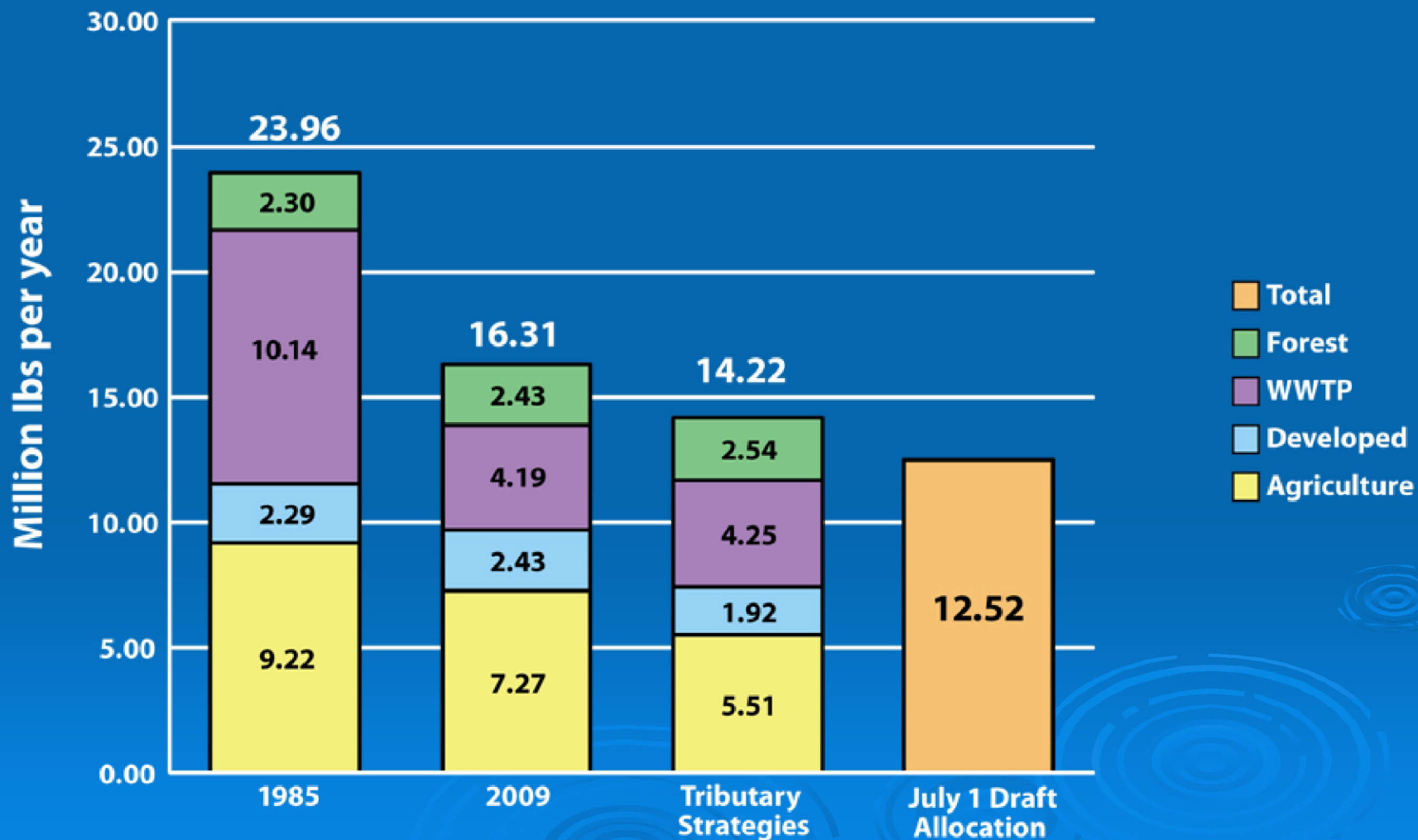
Nitrogen Loads by Sector and Scenario—CBP Watershed Model P5.3



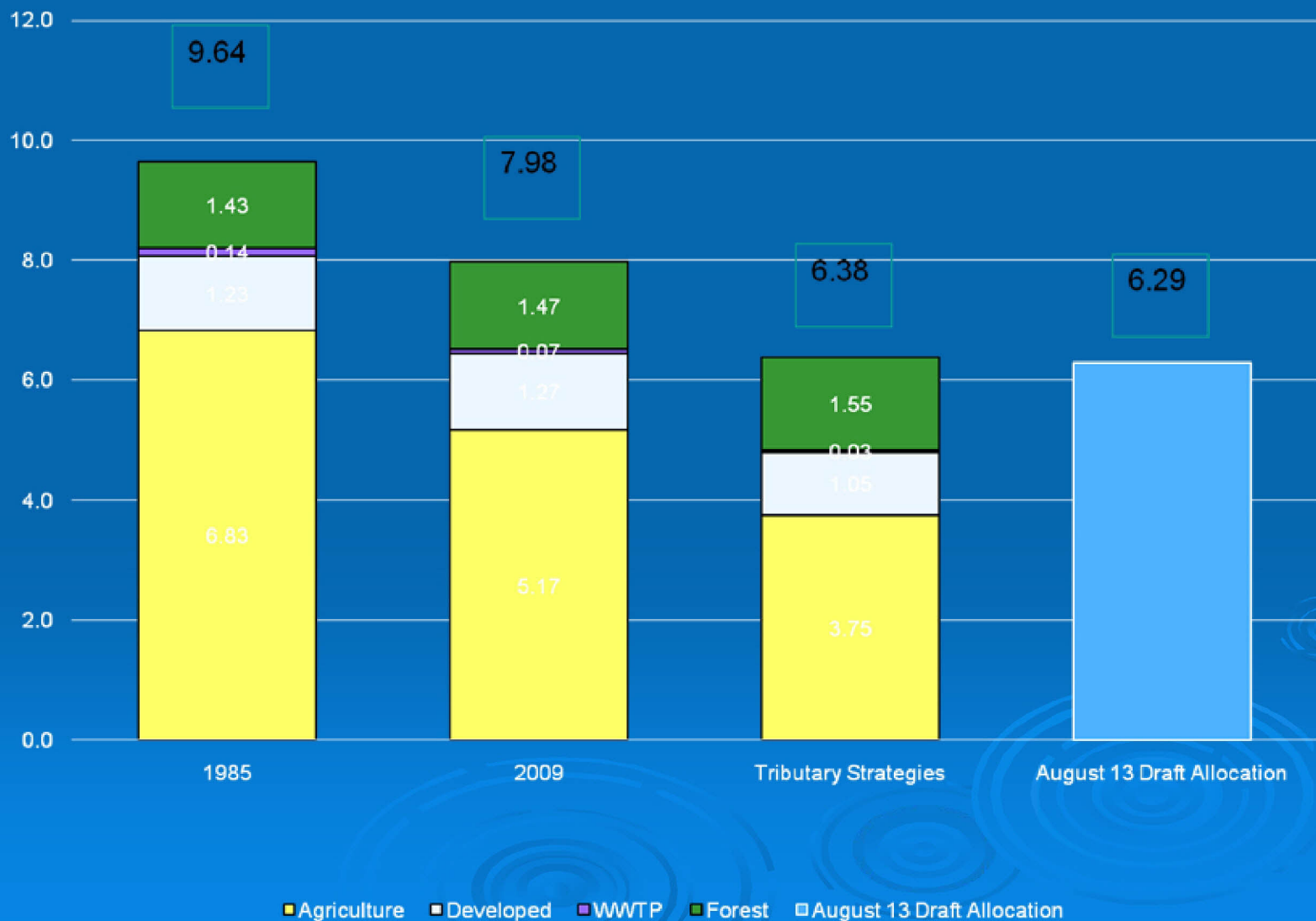
Draft allocation for atmospheric deposition is 15.7 million pounds, which will be achieved by federal air regulations through 2020.

Setting the Diet

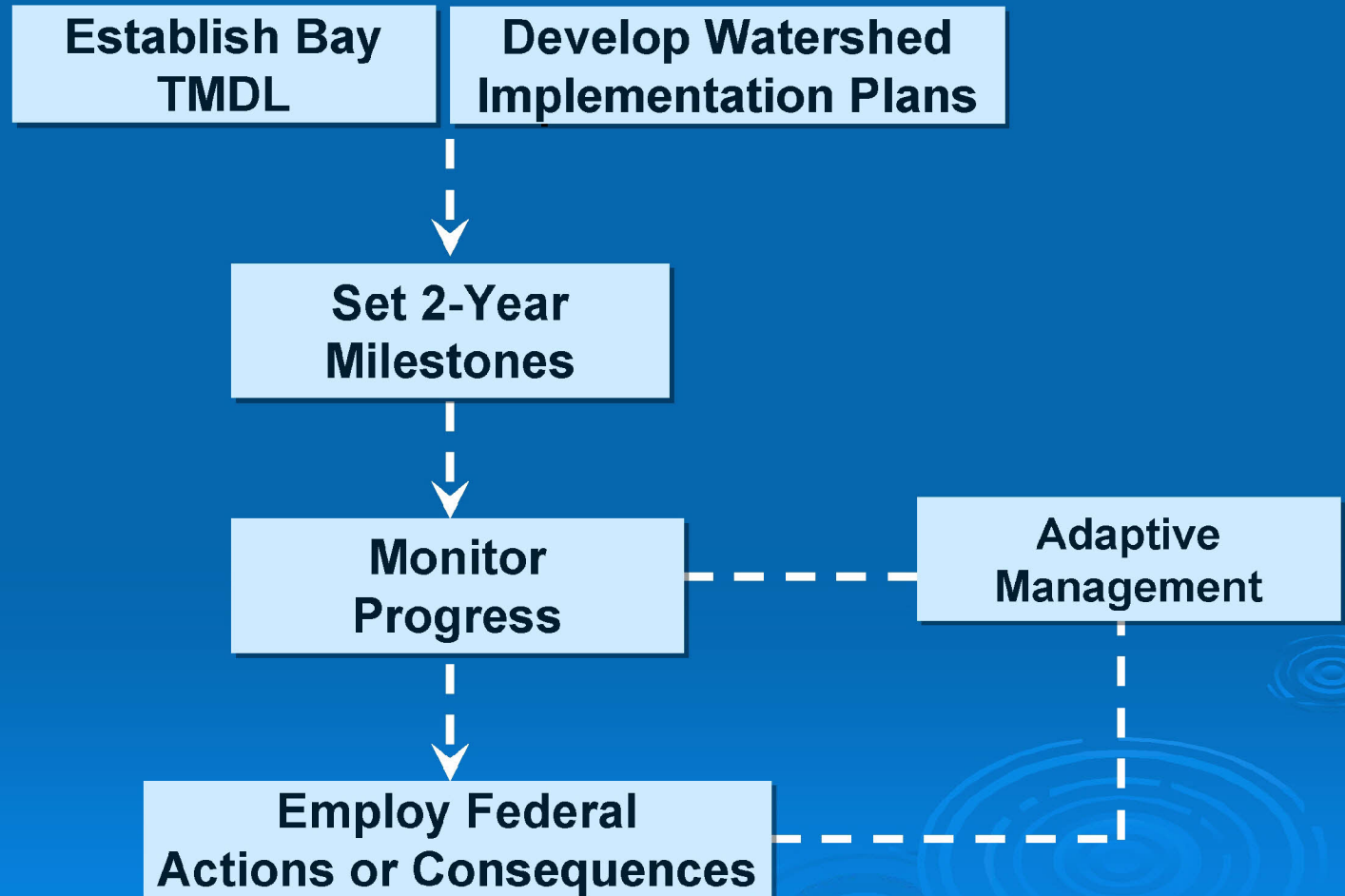
Phosphorus Loads by Sector and Scenario—CBP Watershed Model P5.3



Model Simulated Sediment Loads by Scenario Compared with the Draft Sediment Allocations (billions of pounds per year as TSS)



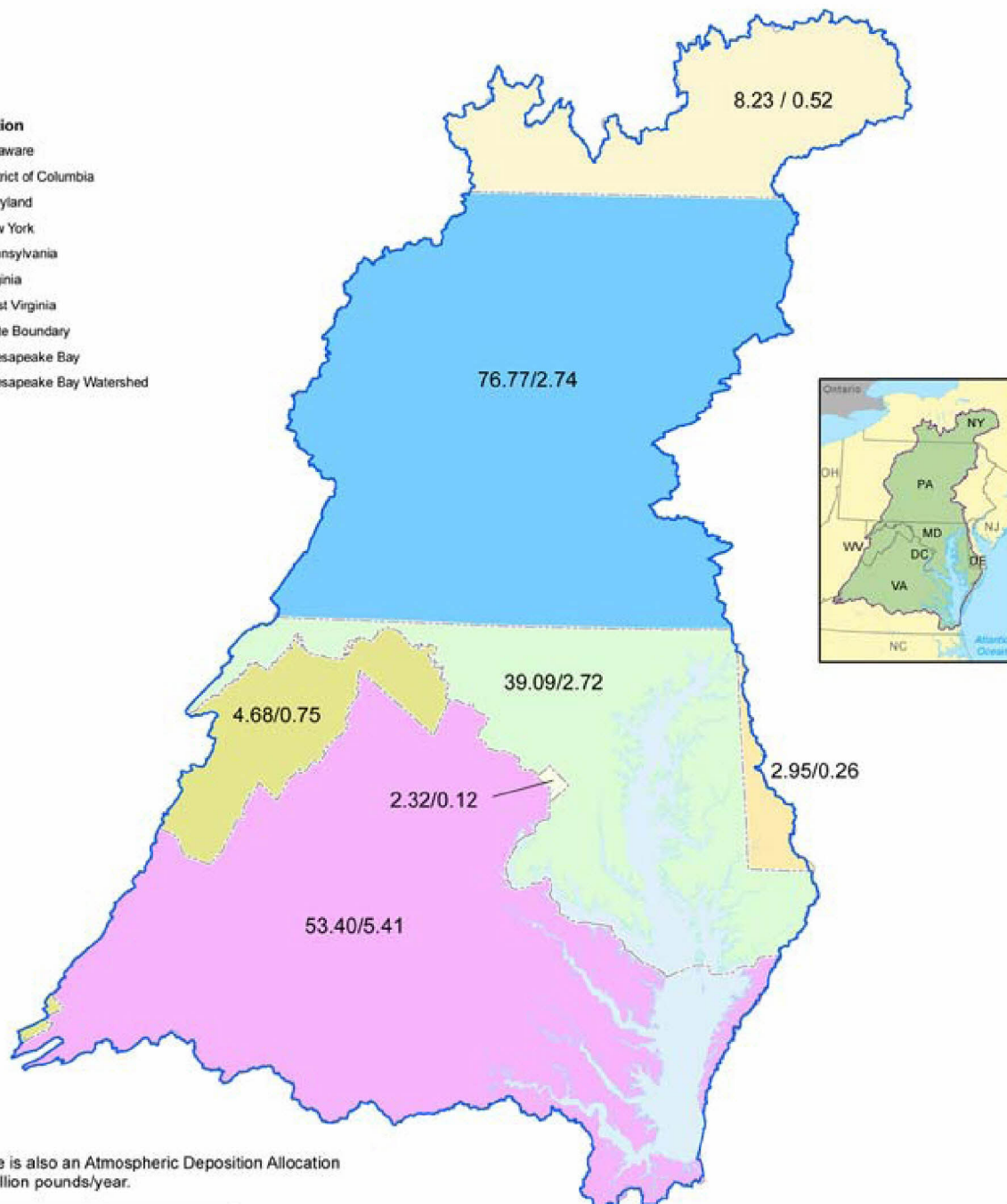
Accountability for Results



Pollution Diet by State

Jurisdiction

- Delaware
- District of Columbia
- Maryland
- New York
- Pennsylvania
- Virginia
- West Virginia
- State Boundary
- Chesapeake Bay
- Chesapeake Bay Watershed



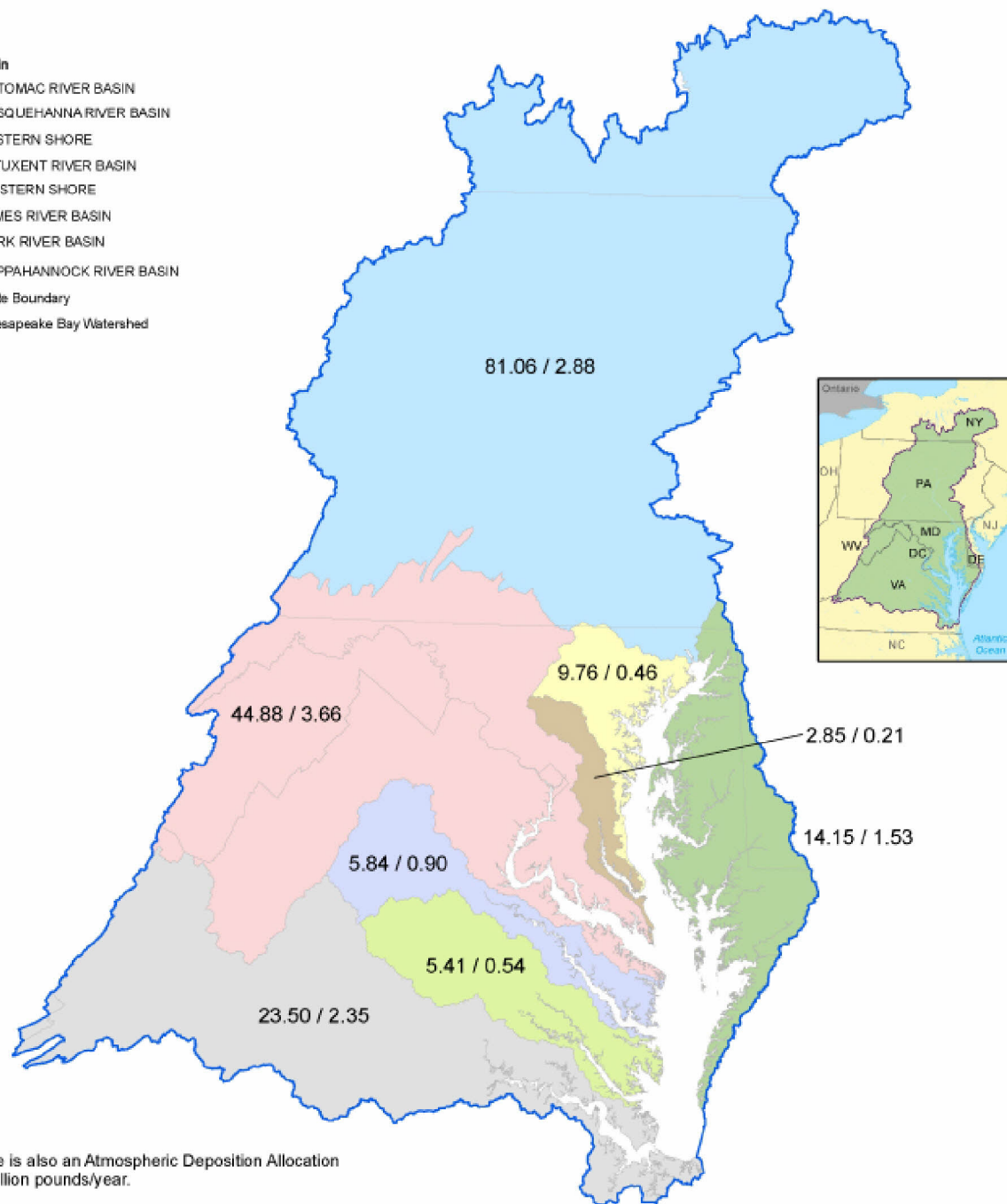
Pollution Diet by River

Major Basin

- POTOMAC RIVER BASIN
- SUSQUEHANNA RIVER BASIN
- EASTERN SHORE
- PATUXENT RIVER BASIN
- WESTERN SHORE
- JAMES RIVER BASIN
- YORK RIVER BASIN
- RAPPAHANNOCK RIVER BASIN

----- State Boundary

Chesapeake Bay Watershed



Note: There is also an Atmospheric Deposition Allocation of 15.70 million pounds/year.

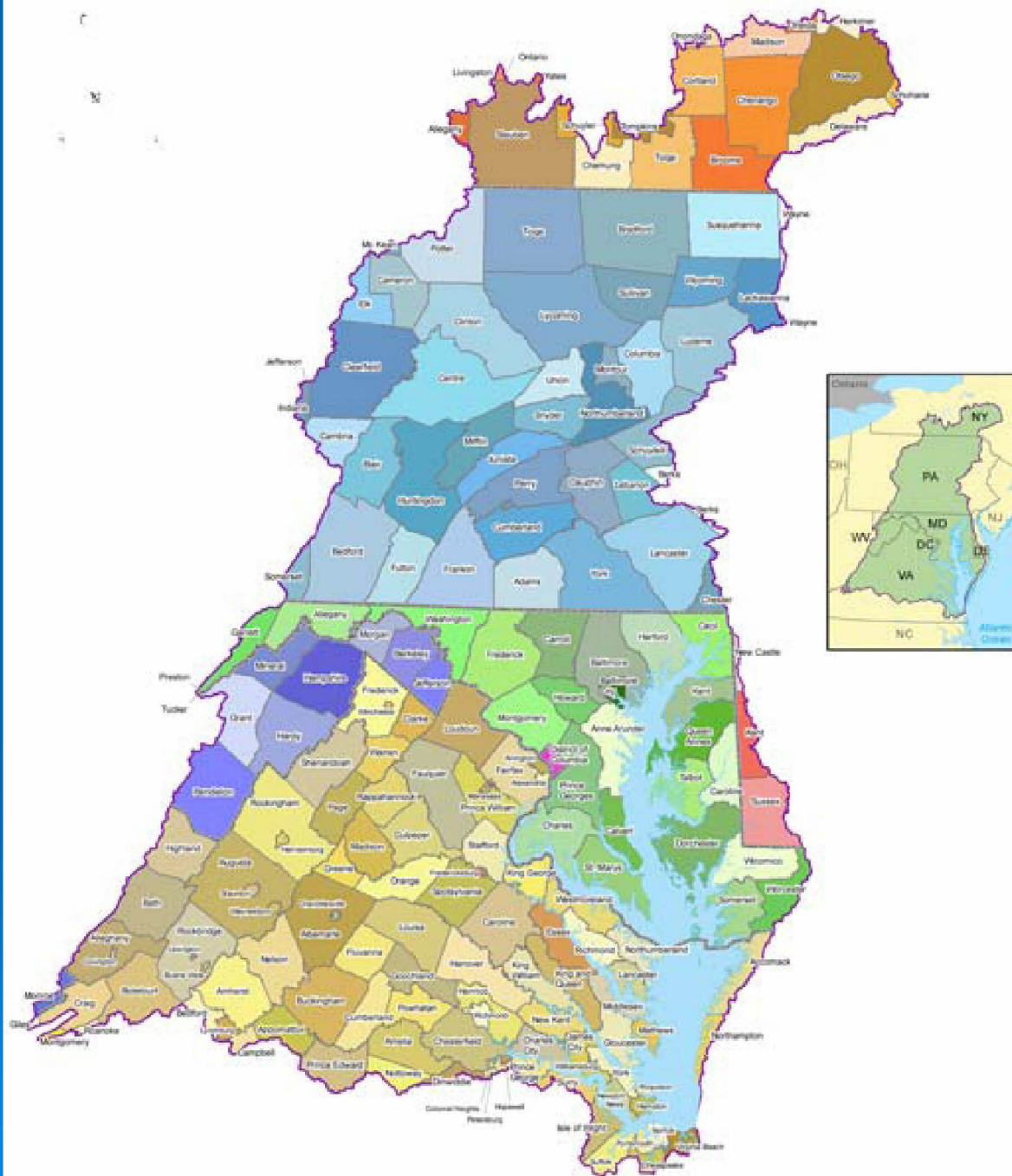
TMDL Goals

2 year milestones

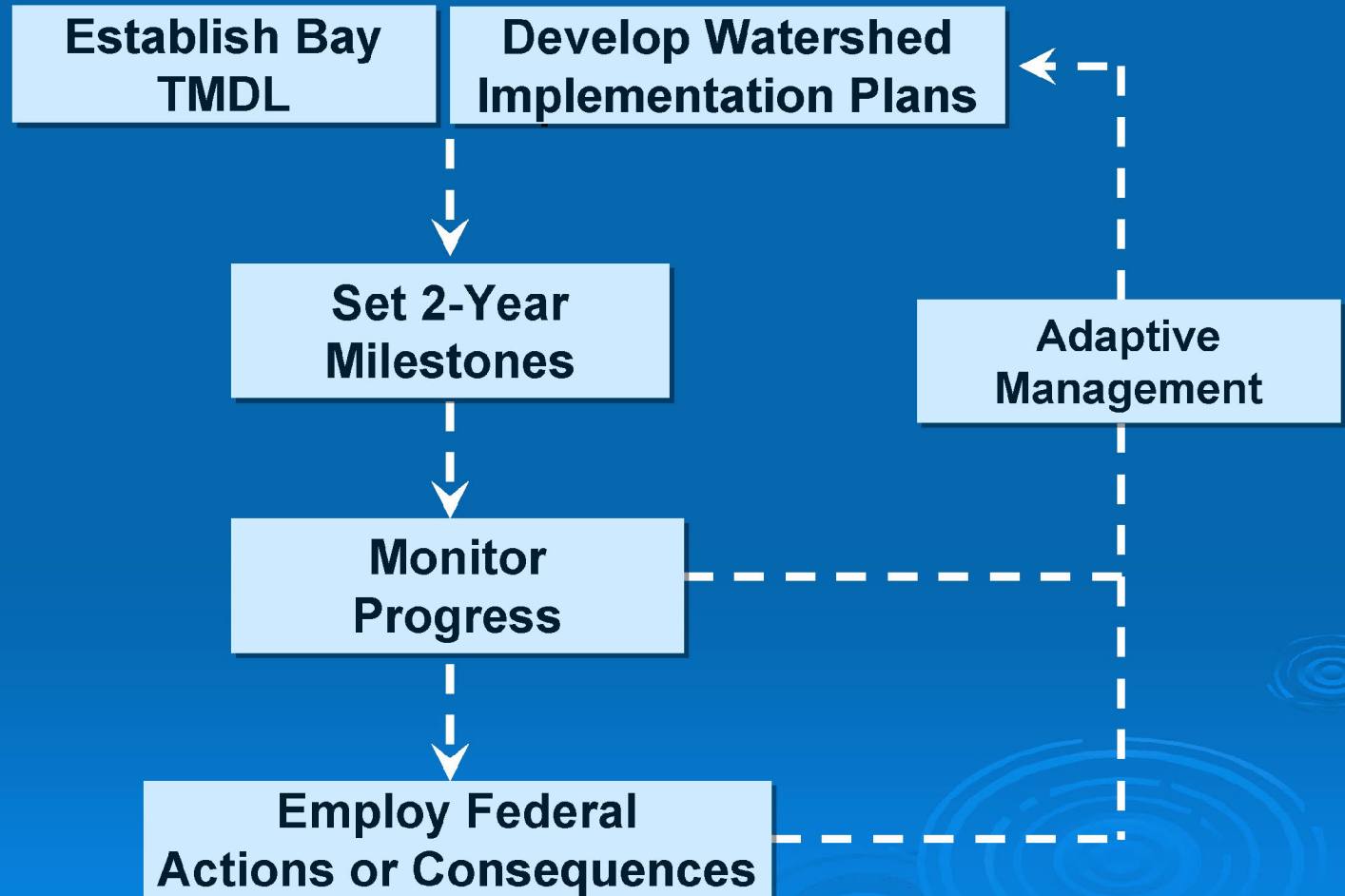
60 percent by 2017

100 percent by 2025

Local in 2011



Accountability for Results



Meeting the Diet

Watershed Implementation Plan

**How, when and where
a jurisdiction will reduce pollution
to meet its share of TMDL diet**

Draft WIP Evaluation

- 7 jurisdictions provided Draft WIPs in early September
- Team of EPA experts conducted a rigorous evaluation - WIPs must:
 - achieve pollution targets for river basins & jurisdiction overall
 - provide a high level of reasonable assurance that pollution controls will be achieved and permitting programs will result in reductions

Draft WIP Evaluation

JURISDICTION TOALS: 4 of 7 met for sediment
2 of 7 met for nitrogen &
phosphorus

- **Maryland:** Meets statewide allocations for nitrogen, phosphorus & sediment, though individual basins are over for nitrogen, phosphorus or sediment
- **D.C.:** Meets for nitrogen & phosphorus; not for sediment
- **New York, Delaware, Virginia:** Meet sediment, not for nitrogen & phosphorus
- **Pennsylvania:** Meets nitrogen statewide but not all basins; Over for phosphorus & sediment
- **West Virginia:** Meets phosphorus, not for sediment or nitrogen

Draft WIP Evaluation

None of the WIPs provided full assurance that programs identified will achieve pollution targets by 2017 or 2025

- No strategy for filling known program or resources gaps
- Few enforceable or otherwise binding commitments
- Discrepancies between implementation programs and strategies described in a WIP
- Reliance on pollution trading programs – no commitment to adopt critical trading drivers such as new regulations
- Few dates for key actions and program-building milestones

Draft WIP Evaluation: **Stormwater**

- A number of jurisdictions are lacking strong performance standards and specific, enforceable permit conditions
- Only one state included a strong retrofit program within their WIP
- Number of proposed management practices' implementation rates are unreasonable to achieve by 2025

Draft WIP Evaluation: **Wastewater**

- Some jurisdictions lacked detailed information for permit writer to derive permit conditions for nonsignificant dischargers
- Some jurisdictions did not identify all their wastewater dischargers
- One jurisdiction set all significant dischargers – with one exception – very high, at 12 mg/L TN and 2 mg/L TP
- Tracking of nutrient loads and upgrade/compliance schedules needs improvement in most jurisdictions

Draft WIP Evaluation: **Agriculture**

- Little to no detail on plan for building technical assistance, leveraging financial incentives and verifying implementation of conservation practices
- Implementation rates of proposed conservation practices are unrealistic to achieve by 2025 unless incorporated into state technical standards or other regulatory programs
- No or limited commitment to improving phosphorus management to address high phosphorus in soils and related excess manure
- Compliance/enforcement strategies inadequate
- Additional reductions may be possible through new technologies

Federal Backstops

- All jurisdictions require some level of backstop allocation or adjustment to:
 - Meet the pollution allocations
 - Provide a high level of assurance
- Backstop allocations focus on federal authority to control allocations through NPDES permits
 - Establish additional reductions from regulated point sources (wastewater treatment plants, CAFO, MS4s)
 - Establish finer scale allocations for headwater states

Federal Backstops

➤ Backstop allocation adjustments

- **Minor** - adjust load allocations to equal targets
- **Moderate** - uses best state WIP practices; greater point source regulation
- **High Backstop** - best state WIP practices for stormwater and AFO production areas; limit of technology concentration for WWTPs

Backstops by Jurisdiction

- **Maryland – Minor Backstop**
 - To ensure each basin meets nitrogen, phosphorus and sediment allocations
- **D.C. – Minor Backstop**
 - Adjust sediment to meet allocation range - strong DC MS4 permit is the main gap filler; no mention in DC's WIP
- **Virginia – Moderate Backstop**
 - James River requires close attention
- **Delaware, Pennsylvania, New York and West Virginia – High Backstop**
 - for nitrogen and phosphorus to compensate for allocation errors and reasonable assurance gaps
- **Headwater States (PA, NY, WV)**
 - EPA assigning finer scale wasteload and load allocations to same level of detail as tidal states to ensure wasteload allocations can be translated into permit conditions

	WWTPs	Stormwater	CAFO Production Areas
Moderate: (VA)	4 mg/L TN, .3 mg/L TP + Design Flow (MD ENR Strategy)	<p>Construction: 100% Erosion & Sediment Control</p> <p>MS4: 50% of urban MS4 lands meet aggressive performance standard through retrofit/ redevelopment</p> <p>50% of unregulated land treated as regulated, so that 25% of unregulated land meets aggressive performance standard; designation as necessary</p>	<p>Waste management, barnyard runoff control, mortality composting</p> <p>Precision feed management for all animals</p> <p>Same standards apply to AFOs not subject to CAFO permits EXCEPT no feed management on small dairies; designation as necessary</p>
High Level Backstop (DE, PA, NY, WV)	Limit of Tech. concentration (3 mg/L N, .1 mg/L P) + Design Flow	Same as Moderate	Same as Moderate
Full Backstop	Limit of Tech. concentration (3 mg/L N, .1 mg/L P) + Current Flow	Same as Moderate	Same as Moderate

In Summary

- Hybrid TMDL is blend of jurisdiction WIPs and EPA backstop allocations
 - Needed to fill gaps and assure that allocations will be met
- EPA prefers to use jurisdiction WIPs and not backstop in final TMDL
- More work needs to be done by jurisdictions to provide satisfactory assurance in all sectors
- Nonpoint source sectors, including agriculture, have considerable work to do to achieve pollution load caps

Opportunities for Improvement

- Jurisdictions can enhance their WIP submissions by the November 29 deadline for final versions
 - EPA will engage jurisdictions in discussions to share best practices from WIPs, share EPA guidance and assist in any way
 - EPA will again evaluate these WIPs to determine if the federal backstop allocations can be replaced with jurisdiction commitments
 - 2011 provides another opportunity in Phase II WIPs to enhance the levels of commitment

Next Steps

Next Steps

- Hold 18 public meetings in six states, D.C.
- Public comment period until November 8
- States, D.C. submit final WIPs on November 29
- TMDL will be established by December 31
- We need to move forward with restoring the Bay by the 2017 and 2025 deadlines

Submit Your Comments

- Public comment period until **November 8**
 - **Electronically**, visit:
www.regulations.gov
Docket ID No. EPA-R03-OW-2010-0736
 - **In writing**, mail to:
Water Docket, EPA, Mailcode: 2822T
1200 Pennsylvania Ave., NW.,
Washington, D.C., 20460.
 - **By hand**, drop off from 8:30 a.m. - 4:30 p.m.:
EPA Docket Center Public Reading Room,
EPA Headquarters West, Room 3340,
1301 Constitution Ave., NW, Washington, D.C.



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